

**CLAIMS**

- 1.- A measurement method for measuring a physical value, comprising  
during a clock cycle: forming an input signal, a reference signal and an  
offset signal, the input signal including a parasitic value and a useful  
5 measurement value, the signals being respectively associated with  
an input element, a reference element and a parasitic element, all  
elements having a common driving signal, the parasitic value  
depending on the common driving signal, and  
deriving a relationship between the input signal, from which the parasitic  
10 value has been cancelled out, and the reference signal, and  
from this relationship, determining a value relating to the physical value.
- 2.- A measurement method according to claim 1, wherein the input signal is  
a first voltage.
- 3.- A measurement method according to claim 2, wherein the first voltage is  
15 obtained from a direct voltage drop over the sensing element.
- 4.- A measurement method according to claim 1, wherein the reference  
signal is a second voltage.
- 5.- A measurement method according to claim 2, wherein the reference  
signal is a second voltage.
- 20 6.- A measurement method according to claim 4, wherein the second voltage  
is obtained from a direct voltage drop over the reference element.
- 7.- A measurement method according to claim 1, wherein the reference  
element is a reference resistor.
- 8.- A measurement method according to claim 1, wherein the offset signal is  
25 a third voltage.
- 9.- A measurement method according to claim 2, wherein the offset signal is  
a third voltage.
- 10.- A measurement method according to claim 4, wherein the offset signal is  
a third voltage.
- 30 11.- A measurement method according to claim 8, wherein the third voltage is  
obtained from a direct voltage drop over the parasitic element.
- 12.- A measurement method according to claim 1, wherein the physical value

includes any of a temperature, a pressure, a light intensity, a position.

13.- A measurement system for indirect measurement of a physical value, comprising

an analog-to-digital converter with at least a first, a second and a third

5 port, each of the at least three ports being suitable for receiving an input signal from an element, the analog-to-digital converter being suitable for evaluating the physical value in one measurement cycle,

a sensing element having a pre-defined characteristic parameter related to the physical value to be measured, being coupled to the first port

10 for applying an input signal to said first port,

a reference element being coupled to the second port for applying a reference signal to the second port,

an element corresponding to a parasitic value of the sensing element, being coupled to the third port for applying a parasitic value of the sensing element to the third port,

15 means for deriving a relationship between the input signal, from which the parasitic value of sensing element has been cancelled out, and the reference signal, and

means for deriving, from the relationship, a value relating to the physical value.

20 14.- A measurement system according to claim 13, wherein the reference element is coupled in series with the sensing element.

15.- A measurement system according to claim 13, wherein the element corresponding to a parasitic value of the sensing element is coupled in series with the sensing element.

25 16.- A measurement system according to claim 14, wherein the element corresponding to a parasitic value of the sensing element is coupled in series with the sensing element.

17.- A measurement system according to claim 13, wherein the reference element comprises a reference resistor.

30 18.- A measurement system according to claim 13, wherein the physical value is any of a temperature, a pressure, a light intensity, a position.